

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Application No.: 10/810,567

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (Currently amended) A Method for decoding Variable Length Codes used to encode data having a predefined type, preferably image or video data, said encoded data consisting in a sequence of codewords belonging to a predefined set of codewords, said method comprising the steps of:

~~building at least one partial decoded codeword sequence comprising at least two decoded codewords;~~

~~checking if said partial decoded codeword sequence fulfils at least one property intrinsic to said predefined type of data~~

building iteratively partial decoded codeword sequences by adding at each iteration an additional plausible codeword, the number of partial decoded codeword sequences at each iteration being equal to the number of additional plausible codewords which can be decoded,

computing a metric for each obtained partial decoded codeword sequence, said metric giving an information on the meaningfulness of a sequence of data of said predefined type having a predefined bit length; and

keeping the partial decoded codeword sequence of said predefined bit length, herein called survivor of bit length L, for optimizing said metric for the next iteration.

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2. (Currently amended) The Mmethod according to claim 1, wherein said encoded data are transmitted over an air interface in a wireless communication network.

3. (Cancelled).

4. (Currently amended) The Mmethod according to claim 31, wherein said predefined type of data are image or video data blocks comprising a predefined number of pixels, further comprising the steps of:

determining at each iteration an information related to the number of pixels coded in said survivor of bit length L;

keeping at least one additional partial decoded codeword sequence, having the same bit length as said survivor of bit length L, for which said information related to the number of pixel coded in said partial decoded sequence is lower than said corresponding information for said survivor of bit length L.

5. (Currently amended) The Mmethod according to claim 31, further comprising the steps of:

computing a likelihood for each bit of said partial decoded codeword sequence kept for next iteration, herein called survivor, as a function of partial decoded codeword sequences having the same bit length as said survivor; and

generating a soft decoding output as a function of said likelihood.

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6. (Currently amended) ~~The M~~method according to claim 1, wherein said data are image or video data blocks comprising a predefined number of pixels, said method further comprising the step of: ~~said at least one property intrinsic to image or video data consisting in checking if~~ for rejecting said partial decoded codeword sequence if the sum over the codewords belonging to said partial decoded codeword sequence of parameter values representing the number of pixels encoded in a codeword is ~~having a bit length smaller or equal to~~ greater than the number of pixels per data blocks, noted N, resulting in that following equation is not verified:

$$\sum_{\text{codewords} \in \text{partial sequence}} \text{run}_{\text{codeword}} + 1 \leq N,$$

wherein said parameter “run_{codeword}” ~~is related to~~ represents the number of pixels coded in a codeword.

7. (Currently amended) ~~The M~~method according to claim 1, wherein said data are image or video data, ~~said at least one property intrinsic to image or video data~~ blocks, said method further comprising the step of rejecting said partial decoded codeword sequence ~~consisting in checking if~~

~~for a~~ said partial decoded codeword sequence having ~~has~~ a bit length smaller than the number of pixels ~~bit length~~ per data blocks, ~~an indicator of the end of block equals 0 and the last~~ codeword of said partial decoded codeword sequence comprises a parameter indicating that said codeword is the last of said data block, or

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~~for a~~said partial decoded codeword sequence of has a bit length equal to the number of pixels per data blocks and the last codeword of said partial decoded codeword sequence comprises a parameter indicating that said codeword is not the last of said data block, an indicator of the end of block equals 1.

8. (Currently amended) ~~The M~~method according to claims 6, further comprising the step of discarding said partial decoded codeword sequence if said property is not verified.

9. (Currently amended) ~~A R~~Receiver for receiving data encoded with a Variable Length Code, said receiver comprising:

means for building iteratively partial decoded codeword sequences by adding at each iteration an additional plausible codeword, the number of partial decoded codeword sequences at each iteration being equal to the number of additional plausible codewords which can be decoded,

means for computing a metric for each obtained partial decoded codeword sequence; said metric giving an information on the meaningfulness of a sequence of data of said predefined type having a predefined bit length;

means for keeping the partial decoded codeword sequence of said predefined bit length, herein called survivor of bit length L, for optimizing said metric for the next iteration.~~for building at least one partial decoded codeword sequence comprising at least two decoded codewords;~~

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~~means for checking if said partial decoded codeword sequence fulfils at least one
property intrinsic to said predefined type of data.~~